# Owner's Manual & Safety Instructions

**Save This Manual** Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

PITTSBURGH® AUTOMOTIVE

**ITEM 92349**

# 12 Volt-1/2 in. Emergency Impact Wrench

**REV 13k**

**Visit our website at: http://www.harborfreight.com**
**Email our technical support at: productsupport@harborfreight.com**

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

## ⚠WARNING

**Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.**

## Specifications

| | |
|---|---|
| Maximum Torque | 150 Ft. Lbs. |
| Drive Size | 1/2" Square |
| Blows Per Minute | 30 to 40 |
| Power Cord (12 Volt Plug In) | 18 AWG X 2C SPT - 2, 11' Long |
| Accessories | 7/8", 13/16", 3/4", & 11/16" Sockets |

**NOTE: Unlike air-operated or 120V AC impact wrenches, this Wrench will build up inertia before striking a blow. This is normal, and DOES NOT INDICATE A PROBLEM.**

## Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

## Safety Warnings and Precautions

**WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.**

**Read all instructions before using this tool!**

1. **Keep work area clean**. Cluttered areas invite injuries.
2. **Observe work area conditions**. Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away**. Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **Store idle equipment**. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job**. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly**. Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically nonconductive clothes and nonskid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Use eye protection**. Always wear ANSI approved impact safety goggles.
8. **Do not overreach**. Keep proper footing and balance at all times.

9. **Maintain tools with care**. Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The handle must be kept clean, dry, and free from oil and grease at all times.

10. **Disconnect power**. Unplug tool when not in use.

11. **Avoid unintentional starting**. Be sure the Trigger is in the Off position when not in use and before plugging in. Do not carry any tool with your finger on the trigger, whether it is plugged in or not.

12. **Stay alert**. Watch what you are doing, use common sense. Do not operate any tool when you are tired.

13. **Check for damaged parts**. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any Trigger does not operate properly.

14. **Guard against electric shock**. Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures. Use caution near batteries and starters.

15. **Replacement parts and accessories**. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.

16. **Do not operate tool if under the influence of alcohol or drugs**. Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.

17. **Maintenance**. For your safety, service and maintenance should be performed regularly by a qualified technician.

18. **People with pacemakers should consult their physician(s) before using this product.** Electromagnetic fields in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.

19. **Use this tool with both hands**. This tool requires the use of both hands when operating. This helps maintain tool stability and keeps hands away from the working area of the tool.

20. **This unit should only be powered by 12 Volt DC systems**.

**Note**: Performance of this tool may vary depending on variations in battery power.

**Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.**

## Unpacking

When unpacking, check to make sure the parts listed on page 7 are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

## Operation

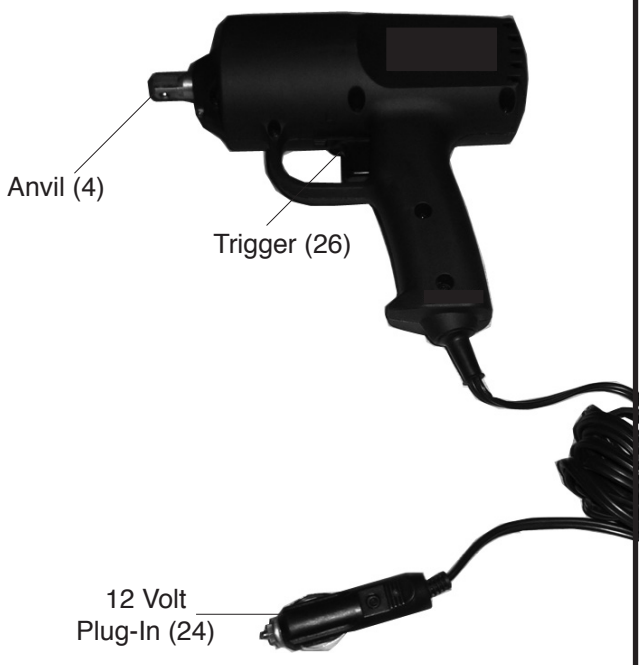
**WARNING!** Running engines produce carbon monoxide, an odorless, colorless gas that is extremely toxic. Exposure to carbon monoxide can result in headaches, dizziness, vomiting, and even death. **The engine must only be run in an open, well-ventilated place.**

1. Prior to use, be sure that your vehicle or other work object is safely secured in preparation for maintenance.
2. This tool operates on 12 Volts DC. Do not attempt to use this tool with any other voltage.
3. You may connect to the 12 Volt power source by directly plugging in the 12 Volt Plug-In (24) to the vehicle's receptacle, or, you may use the Battery Adapter Cable. To use the Battery Adapter Cable, simply insert the 12 Volt Plug-In into the Adapter. When it is safe to do so, connect the RED clamp to the POSITIVE terminal of a 12 volt battery. Connect the BLACK clamp to a clean grounded part of the vehicle such as the engine block or frame member. **NEVER leave either clamp attached to the vehicle while the impact wrench is not being used; disconnect clamps immediately as soon as work is finished. Also, make certain that neither clamp can come into contact with any other wire or metal portion of the vehicle's engine.** See **FIGURE 1**.

**NOTE:** If the engine is left running while performing this operation, be sure to avoid placing any cables or clamps, or your hands, clothes, hair or any other appendage in close proximity

**FIGURE 1**

**FIGURE 2**



to the moving parts of the engine.

**WARNING:** Working around vehicle engines whether running or not is inherently dangerous, and extraordinary precautions outside the scope of this booklet are required. Refer to the owner's manual of your vehicle for more information.

4. **NOTE: Unlike air-operated or 120V AC impact wrenches, this wrench will build up inertia before striking a blow. This is normal, and DOES NOT INDICATE A PROBLEM.**

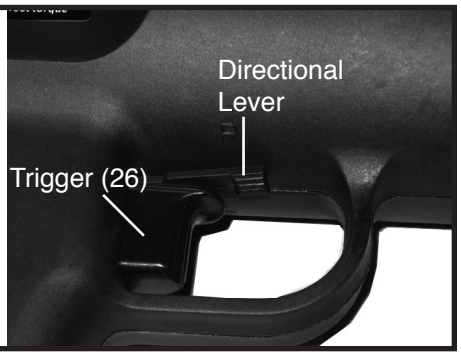
5. Make sure the vehicle is parked safely away from all other moving traffic. Be sure the vehicle is parked on a flat, dry, level surface. Be sure the vehicle's emergency brake is set, and the tires have wheel blocks preventing movement.

6. Select the appropriate size socket to fit the wheel lug nut. Attach the socket to the Impact Wrench by pressing them on to the Anvil (4). Only use impact sockets and attachments.

7. Position an appropriate lift (not included) under the lift point for each wheel to be removed. (Follow the vehicle and lift manufacturer's instructions for doing so.) Lift the vehicle until the wheel is off the ground, and support the vehicle securely on jack stands (not included).

8. The Impact Wrench is reversible. To operate the Impact Wrench in a forward (tightening) direction, set the Directional Lever toward the "R" symbol - see **FIGURE 3**. To operate the Impact Wrench in reverse direction, set the Directional Lever toward the "L" symbol. If the Directional Lever is set in the middle, the unit will not turn in either direction. Using the Impact Wrench in reverse, remove the wheel lug nuts according to the manufacturer's recommendations. (In most cases, the manufacturer will recommend that you remove the lugs in an alternate pattern, moving around the wheel.)

**FIGURE 3**




**Note:** For night use, this Impact Wrench has a LED (27) light. See **FIGURE 4**.

**FIGURE 4**

## Operation (continued)

9. Occasionally, you will have to manually break a nut loose before you can remove it with the Impact Wrench. To do so, use a Breaker Bar (not included) and Socket to break the nut loose. Then, proceed as discussed in number 8 on page 5.

10. Replace the wheel on the vehicle hub, aligning the wheel studs with the bolt holes in the wheel.

11. Install the wheel lug nuts, following the vehicle manufacturer's recommendations. To avoid cross-threading the lug nuts, thread the nuts on by hand first, before using the Impact Wrench.

**CAUTION**

**Do not use the Impact Wrench to tighten the lug nuts.**
**The torque may exceed the vehicle specifications and damage may result.**

12. When the wheel is securely refastened, use a torque wrench (not included) to check the torque on all bolts and ensure that the tightness meets the manufacturer's recommendations. Check under the vehicle and remove any tools. Lower the vehicle, disconnect the tool and replace the lift and the Impact Wrench to their storage places.

## Maintenance

1. When not in use, store your Impact Wrench and its accessories in its case, in a secure, dry place. Protect it from water, moisture, oil, fuel, grease or other foreign materials which may damage the case, moving parts, or electrical components.

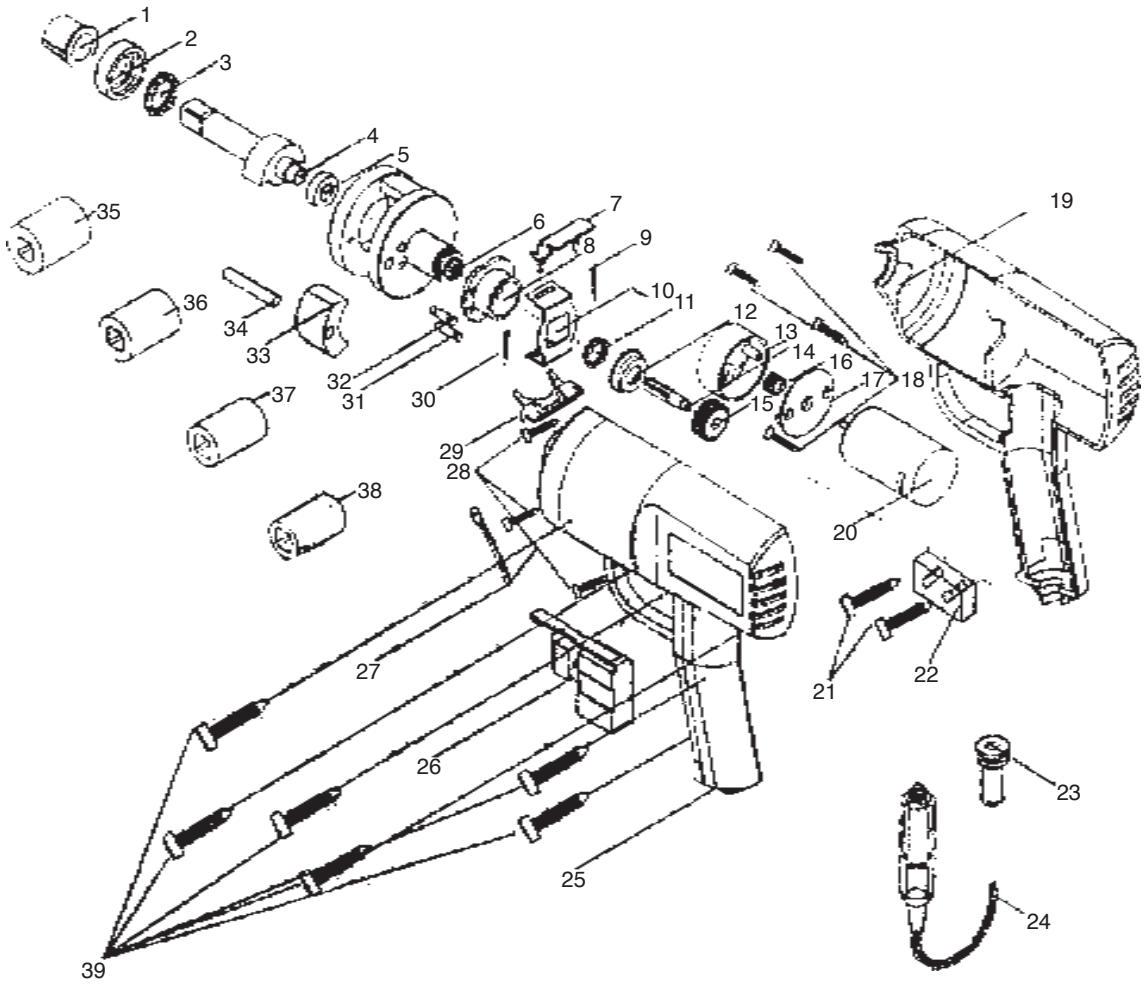
2. This tool should only be repaired by a qualified technician.

3. The 12 Volt Plug-In (24) assembly has a fuse that will eventually need replacing. Remove the Cap at the end of the Plug-In and replace the fuse making sure to replace the pieces below, in the exact same order as shown. **<u>Only</u> replace the fuse with another 12A-250V fuse of the same style.**

## Parts List

| Part No. | Description | Part No. | Description |
|---|---|---|---|
| 1 | Bearing | 21 | Bolt |
| 2 | Anvil Bearing | 22 | Cable Block |
| 3 | Radial Bearing | 23 | Cable Bushing |
| 4 | Anvil | 24 | 12V Plug-In |
| 5 | Oil Bearing | 25 | Left Housing |
| 6 | Rachet Wheel Base | 26 | Trigger |
| 7 | Wheel | 27 | LED |
| 8 | Wheel Tray | 28 | Bolt |
| 9 | Pull Spring | 29 | Wheel |
| 10 | Wheel Brace | 30 | Pull Spring |
| 11 | Rachet Wheel Bearing | 31 | Bolt |
| 12 | Pedestal Bearing | 32 | Bolt |
| 13 | Gear | 33 | Pawl |
| 14 | Gear Shaft | 34 | Rod |
| 15 | Drive Wheel | 35 | 7/8” Socket |
| 16 | Motor Gear Wheel | 36 | 13/16” Socket |
| 17 | Gear Box Lid | 37 | 3/4” Socket |
| 18 | Bolt | 38 | 11/16” Socket |
| 19 | Right Housing | 39 | Bolt |
| 20 | Motor | 40 | Battery Adapt. Cable |

## Assembly Drawing




**Note: The Battery Adapter Cable (40) is not shown.**

**PLEASE READ THE FOLLOWING CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

## Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

**NOTE:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.